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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,888	04/20/2005	Shinkichi Ikeda	MAT-8683US	5896

23122 7590 04/01/2008

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EXAMINER	
NOORISTANY, SULAIMAN	
ART UNIT	PAPER NUMBER
2146	
MAIL DATE	DELIVERY MODE
04/01/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/531,888	IKEDA ET AL.	
	Examiner	Art Unit	
	SULAIMAN NOORISTANY	2146	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4,7,11 and 15-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4,7,11 and 15-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *04/20/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Detailed Action

This Office Action is response to the application (10/531888) filed on 20 April 2005.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114. including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 7 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/18/08 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a), which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 4, 7, 11, 15-16, 18, 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Jenson** U.S Patent App. No. **US 2002/0186653** in view of **Frelechoux** US **2002/0023163** further in view of **Alexander** U.S Patent No. **US 6,956,816.**

Regarding claims 1 & 7, Jenson teaches wherein a router device comprising:

a virtual router processing section for operating, virtually as one router device, a plurality of router devices connected to a local area network **(A VRRP router is configured to run the VRRP in conjunction with one or more other routers attached to a network, such as a local area network (LAN) -- Page. 1, [0009]; Fig. 1, unit --100)**;

With respect to claims 1 & 7, Jenson teaches the invention set forth above except for the claimed "*a receiving section for receiving information sent from another router device, the information is information required for the virtual router process; and*

a virtual router information processing section for making a setting required for the virtual router process, on a basis of the information;

wherein the router device is a mobile router device newly connected to the local area network.

the virtual router information processing section executes a process to request the information when the information processing section detects a connection to the local area network, and

the other router device sends the information to the virtual router information processing section device based on the request."

Frelechoux teaches that it is well known wherein a receiving section for receiving information sent from another router device, the information is information required for the virtual router process **(MR1 receives IP information – Page. 4, [0044])**; and

a virtual router information processing section for making a setting required for the virtual router process, on a basis of the information **(MR1 can than dynamically**

configure an OSPF interface with R2 – Page. 4, [0044]);

wherein the router device is a mobile router device newly connected to the local area network **(when a connection to the fixed network (e.g. LAN) is established, mobile router MR1 can peer with the fixed network router – Page.4, [0044]).**

However, Frelechoux is silent in terms of "*the virtual router information processing section executes a process to request the information when the information processing section detects a connection to the local area network, and*

the other router device sends the information to the virtual router information processing section device based on the request."

Alexander teaches that is well known to have the virtual router information processing section executes a process to request the information when the information processing section detects a connection to the local area network **(the protection router can then initiate a switch to the protection line so as to maintain communication with SONET ring – Col. 4, lines 52-54)**, and

the other router device sends the information to the virtual router information processing section device based on the request **(the working router detects a degradation in signal quality on the working line, it can send a message to the protection router over side-band connection -- Col. 4, lines 49-51).**

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jenson's invention by adding a mobile router (not fixed) which is represented a new connected router into the network. Also, Routers in the

same broadcast domain or at each end of a point-to-point link form adjacencies when they have detected each other. This detection occurs when a router "sees" itself in a hello packet. This is called a two way state and is the most basic relationship. The routers elect a *designated router* (DR) and a *backup designated router* (BDR) which act as a hub to reduce traffic between routers. OSPF uses both uncase and multicast to send "hello packets" and link state updates as taught by Frelechoux.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jenson's invention by adding switching scenario where the first switching scenario, it is assumed that the working line is active, and that the working router initiates a switch to the protection line upon detecting a signal fail/degrade condition on the working line. The working router initiates the line switch by transmitting a message to the protection router over side-band connection. In one embodiment, communications between the working router and the protection router are conducted via the user datagram protocol (UDP) known in the art. Upon receiving the message transmitted by the working router, the protection router invokes the APS protocol to request that ADM switch to the protection line, as taught by Alexander.

Regarding claims 4, 20-23 Jenson, Frelechoux & Alexander together taught a router setting method, as described above. Jenson further teaches wherein the information includes a virtual router identifier, a virtual IP address and a virtual MAC address

((virtual Internet Protocol (IP) address, Col. 1, [0009], medium access control (MAC) network address, Page. 1, [0010]).

Regarding claim 11, Jenson, Frelechoux & Alexander together taught a router device according to claim 7, as described above. Jenson further teaches wherein the virtual router information processing section, when receiving a request for the information, further executes a process to send the information being set as a response thereto to the router sending the request **("The active network node may periodically send a control message to the standby (second node) network node. The control message may inform the standby (second node) network node that the active network node is active or in operation" -- Page. 1, [0010]).**

Regarding claim 15, Jenson, Frelechoux & Alexander together taught a router device according to claim 7, as described above. Jenson further teaches wherein the information processing section sends the information at a regular interval **(The active network node may periodically send a control message to the standby network node -- Page. 1, [0010], The second network node may determine whether it receives control information from the first network node during a predetermined time interval at – Page. 3, [0023]).**

Frelechoux further teaches **"the switch logic could automatically supply the IP information to the router, e.g. at intervals or in response to an event such as a change in the PNNI topology or receipt of new PAR PTSEs from the network" –**

Page. 3, [0023]).

Regarding claim 16 & 18, Jenson, Frelechoux & Alexander together taught a router device according to claim 7, as described above. Jenson further teaches wherein the information includes performance criteria indicating a level of data processing capability for the other router device to operate as a master router **(a network may carry information having a higher priority than other paths. The information may be important enough that technologies are required to make some paths redundant, that is, to ensure that if a node or link in the path goes down, that there is an alternate node or link, respectively, available to carry the information – [0008])**.

Claims 17, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Jenson** U.S Patent App. No. **US 2002/0186653** in view of **Frelechoux** US Patent App. No. **2002/0023163** further in view of **Alexander** U.S Patent No. **US 6,956,816** further in of **Huo** U.S Patent No. **US 7,209,435.**

Regarding claim 17 & 19, Jenson, Frelechoux & Alexander together taught a router device according to claim 16, as described above. However, Jenson, Frelechoux & Alexander are silent in terms of *a priority of the second router device is calculated based on the performance capability of the first router device to operate as a master router*.

Huo teaches that is well known to utilize a priority of the second router device is

calculated based on the performance capability of the first router device to operate as a master router **(Fig. 10).**

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jenson's, Frelechoux's & Alexander's invention by calculating a priority value corresponding to the outgoing bandwidth available on each VSRP device comprising a virtual switch. In additional, the VSRP switch calculates that it has a higher priority than that contained in any analyzed hello packet, a hello packet is transmitted containing the VSRP switch's priority value and this portion of the parallel process concludes until the next hello packet is received. If, however, the VSRP switch calculates that the received hello packet contains a greater priority value, the VSRP concludes that another device is the proper VSRP master for the virtual switch and therefore transitions into backup mode and sets its ports to blocking. The parallel process run by the software to maintain the timer mechanism is killed when the VSRP switch transitions to backup mode, as taught by Huo.

Response to Arguments

Applicant's arguments with respect to claims 1, 4, 7, 11, 15-23 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sulaiman Nooristany whose telephone number is (571) 270-1929. The examiner can normally be reached on M-F from 9 to 5. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff Pwu, can be reached on (571) 272-6798. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sulaiman Nooristany 03/26/2008

/Jeffrey Pwu/

Supervisory Patent Examiner, Art Unit 2146